

10(18)#3 2021

DOI: 10.46640/imr.10.18.2

UDK 111.83:614.44

Pregledni članak

Review article

Primljeno: 19.01.2021.

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Media and Health – “Angel and Devil”

Abstract

All media have been flooded with news related to the COVID-19 pandemic. Top scientists have been addressing the public more frequently than ever before. In addition to positive attitudes, there have also been negative ones. In the midst of the pandemic, information about health systems that cannot respond adequately, a large number of deaths, and the lack of vaccines provoked a number of unwanted reactions, such as fear and associated disorders. Bad news kept coming. They were followed by conspiracy theories. Certain groups set out to find information they wanted to accept as true on various social networks.

Should the media be allowed to inform about health without check, should they be allowed to pass on “fake news” in the domain of illness and health, or even manipulate information?

They shouldn't? In order to minimize the negative impacts, there should be mutual responsibility of experts and the media in presenting health-related topics and in disseminating useful and credible information, whereby the media literacy of the end users is indispensable.

Key words: media, health, pandemic, infodemic, COVID-19.

Introduction

“Informing people is more important than the law”...

... was one of the ten principles of Andrija Štampar, the father of the school of public health that sought to achieve “Health for All.” The results of his work, accomplished within less than ten years during the period between the two world wars, are magnificent, especially if we take into account that there was only one health institution south of the Sava at the time, that the country had a predominantly rural population, uneducated and for the most part illiterate, that 60 out of 100 children were dying, and that both acute and chronic diseases were ravaging the country.⁴³ The media in various forms, such as posters, leaflets, brochures, or films, also contributed to Štampar’s success and the results he was achieving.

Today, the media, in addition to their educational function, play a major role in informing the public regarding all spheres of human activity. With the development of technologies, they have become ubiquitous, and their easy availability has made them one of the most important sources of information on any topic. We live in a world in which we can use modern technologies through the smartphone, which is owned by a large number of people. It is actually a computer that grants us access to expert information, here at our fingertips, in our pocket.

In addition, the media today have a new dimension. Instead of being mere providers of information to the passive user, communication has become two-way and this is where the use of social networks comes to the fore. It is estimated that nowadays some 2.47 billion people use Facebook, WhatsApp, Instagram, or Messenger on a daily basis, and more than 3.14 billion use at least one Facebook service per month on the average.⁴⁴ Furthermore, the number of users is growing every day. According to research conducted by the Pew Research Center in the United States, the number of social network users increased from less than 20% to almost 80% in the period from 2005 to 2019.⁴⁵

The use of social networks is present in all age groups, including persons over 65, although their use is often mistakenly associated exclusively with younger age groups. There is a trend of increase in all age groups, and the frequency of use grows as well. Behavioural patterns are similar in the countries of Western civilization as in developed Eastern civilizations, regardless of which social networks are observed.

All of the above shows that social networks have imposed themselves as one of the dominant factors in the media space.

43 Andrija Štampar, *Pet godina socijalno-medicinskog rada u Kraljevini Srba, Hrvata i Slovenaca 1920-1925* [Five years of social-medical work in the Kingdom of Serbs, Croats, and Slovenes, 1920-1925]. Institut za socijalnu medicinu, Zagreb, 1926.

44 Zephoria Digital Marketing, “The Top Valuable Facebook Statistics,” <https://zephoria.com/top-15-valuable-facebook-statistics/> (last accessed on November 9, 2020).

45 Pew Research Center, “Social Media Fact Sheet,” <https://www.pewresearch.org/internet/fact-sheet/social-media/> (last accessed on August 27, 2020).

Therefore, it has become important to use this potential related to health information: through targeted messages, through the ability to interact with the public and the two-way communication, which is why an increasing number of health organizations are turning to social networks, especially in health interventions.

Opportunities for discussion (social cohesion) are considered 14 times greater on social networks compared to the written word, i.e. information shared through the social networks have been proven to result in a higher assessment of knowledge than when shared through info-brochures.⁴⁶ This is the potential of social networks as a space for action offering the possibility of changing health behaviour. And yet, the question of the exact mechanism by which the social networks raise awareness and influence behavioural change remains open.

“What makes a social media campaign successful? Does sharing content or liking imply a change in behaviour?”

In the field of marketing, it is clear what it means to increase the number of clicks or sales, but in the field of public health, such questions remain unanswered.⁴⁷

The situation becomes even more complex in crisis situations related to all segments of human activity, when negative echoes in all fields receive special emphasis, including the media.

Pandemic and the media

Undoubtedly, the media are a powerful means of fostering health education. They play a fundamental role in the public response to a pandemic, as they serve as a portal for communication between governments, health facilities, and people. The “invisible” nature of pandemics imposes an important role on the media as the “eye” of the public. Media channels become windows through which people seek accurate information, scientific and sensational facts, government decisions, as well as reactions from the general public.⁴⁸

The COVID epidemic broke out in December in Wuhan, China. Shortly after spreading across China, health authorities around the world confirmed cases from Southeast Asia, America, Europe, the eastern Mediterranean, Africa, and the western Pacific. The World Health Organization (WHO) declared on March 11, 2020 that the viral disease had become a pandemic. In countries around the world, measures were taken that our generation had never seen before. Schools and workplaces went into a lockdown, borders between countries were closed, and travel restricted, and these were just some of the precautions to limit the spread of the virus. In such difficult circumstances, the public

46 Nick Milton, “Why Knowledge Transfer through Discussion Is 14 Times More Effective than Writing,” <http://www.nickmilton.com/2014/10/why-knowledge-transfer-through.html> (last accessed on October 10, 2020).

47 Gough Aisling et al., “Tweet for Behavior Change: Using Social Media for the Dissemination of Public Health Messages,” *JMIR Public Health Surveillance* 3 (1/2017), e14.

48 Nour Mheidly and Jawad Fares, “Leveraging Media and Health Communication Strategies to Overcome the COVID-19 Infodemic,” *Journal of Public Health Policy* 41 (2020), pp. 410-420.

sought information and evidence-based guidance to help them respond in a system that worked to limit viral transmission. The media, in various forms, became the primary source of information.

Top scientists were addressing the public more frequently than ever before. In addition to positive attitudes, there were also negative ones. Information about health systems that cannot respond adequately, a large number of deaths, and the lack of vaccines provoked a number of unwanted reactions, such as fear and associated disorders. Bad news kept coming. They were followed by conspiracy theories. Certain groups set out to find information they wanted to accept as “true” on various social networks.

What can be noticed is the striking peculiarity of this crisis in the coincidence of virology and virality. Not only did the virus itself spread very quickly, but also information – and misinformation – about the outbreak, and thus the panic it created in the public. This resulted in an “infodemic”, with waves of misinformation and rumours on the pandemic that prevented its alleviation.

Addressing the audience at the Munich Security Conference on February 15, 2020, Director-General of WHO, Dr Tedros Adhanom Ghebreyesus, said:

“We’re not just fighting an epidemic; we’re fighting an infodemic.”

The ease with which inaccuracies and conspiracies can be perpetuated and eternalized through the social media and other common outlets, puts public health at a disadvantage. The most popular global web searches related to the coronavirus disease (COVID-19) have been rated as “high” or “extreme” on the scale of infodemic and the related events.⁴⁹

Scientifically based evidence is vital to ensure that the public is well informed and can respond effectively to a pandemic. An infodemic clearly interferes with such action as it delivers misleading messages about the disease and promotes ineffective precaution measures.

Infodemic and its impact on health

“Measure what is measurable and make measurable what is not so.”

... said Galileo Galilei. In order to be able to talk about a problem, it is necessary to quantify it. Our overview of the magnitude of this problem, the impact of infodemic on human health, includes insights from research conducted by Md. Saiful Islam and his colleagues.⁵⁰ Their research included Facebook, Twitter, and online newspaper editions because these were considered the most representative platforms for monitoring misinformation in the general populace. In the period from December 31, 2019 until April 5, 2020, they analysed 2,311 reports in 87 countries published in 25 languages. Most reports (almost 90%) were classified as rumours, about 8% were conspiracy

49 Alessandro Rovetta and Akshaya Srikanth Bhagavathula, “Global Infodemiology of COVID-19: Analysis of Google Web Searches and Instagram Hashtags,” *Journal of Medical Internet Research* 22 (8/2020), e20673.

50 Md. Saiful Islam et al., “COVID-19-Related Infodemic and Its Impact on Public Health: A Global Social Media Analysis,” *The American Journal of Tropical Medicine and Hygiene* 103 (4/2020), pp. 1621-1629.

theories, and about 4% stigma. The rumours were dominated by news about COVID-19: the disease, transmission, and treatment. There were allegations that you could cure yourself by gargling saltwater or even by drinking bleach. The latter seems to be very popular, and just as dangerous, as it has sadly also been used to treat autism, likewise popularized through various media. Also, there was information that the virus had escaped from a laboratory, as well as conspiracy theories about 5G networks that cause and/or contribute to the spread of COVID-19. The consequences were serious, to the point that some transmitters were set on fire in Birmingham and Merseyside, including one at the Nightingale Hospital in Birmingham.⁵¹ It was a particularly unfortunate damage at a time when hospitals needed to have maximum efficiency.

In addition, rumours, stigma, and conspiracy theories have the potential to reduce the community confidence in governments and international health agencies. Rumours can be disguised as credible infection prevention and control strategies, and potentially have serious implications if given priority over proven guidelines. For example, the popular myth of consuming highly concentrated alcohol to disinfect the body and thus kill the virus circulated in different parts of the world.⁵² Following this misinformation, approximately 800 persons died, while 5,876 were hospitalized. 60 persons developed complete blindness after drinking methanol as an anti-coronavirus drug.⁵³ In addition to individuals following misinformation, cases have been documented where some religious organizations give inappropriate and erroneous advice. Thus, a church in South Korea used a spray bottle to spray consecrated water among believers, which resulted in more than 100 infections among those present.⁵⁴ Similar practices have been observed in some other churches around the world, and even in Croatia Masses have been held despite bans on gatherings.⁵⁵

Stigma and fear of discrimination have also contributed to healthcare-related infections, as observed in some South Asian countries where certain healthcare workers have used deficient protective equipment.⁵⁶

51 Ahmed Siddiqui MY et al., “Social Media Mis-Information: An Epidemic within the COVID-19 Pandemic,” *The American Journal of Tropical Medicine and Hygiene* 103 (2020), pp. 920-921.

52 World Health Organization, 2020. Alcohol Does Not Protect against COVID-19; Access Should Be Restricted during Lock-down. Alcohol Use. Geneva, Switzerland: WHO, Regional Office for Europe.

53 Aljazeera, 2020. Iran: Over 700 Dead after Drinking Alcohol to Cure Coronavirus. Aljazeera. <https://www.aljazeera.com/news/2020/04/iran-700-dead-drinking-alcohol-cure-coronavirus-200427163529629.html> (last accessed on June 4, 2020).

54 Chan-Kyong P, 2020. Coronavirus: Saltwater Spray Infects 46 Church-Goers in South Korea. South China Morning Post. Causeway Bay, Hong Kong: South China Morning Post.

55 Goran Borković, “Napadačima na novinarke kraj crkve u Splitu prijeti do pet godina zatvora” [Attackers on Journalists near church in Split risk up to five years in prison], *Novosti. Vijesti/Hrvatska* (April 12, 2020), <https://www.portalnovosti.com/unatoc-zabrani-u-splitu-odrzana-misa-vjernici-napali-novinarke-i-snimateljicu> (last accessed on August 31, 2020).

56 Tawsia Tajmim, “Coronavirus: 41 Doctors, 10 Nurses Infected,” <https://tbsnews.net/coronavirus-chronicle/covid-19-bangladesh/coronavirus-41-doctors-10-nurses-infected-68689> (last accessed on September 1, 2020).

Because of the fear of stigma, people may avoid screening/testing and further spread the deadly disease.⁵⁷ Additional reasons may be financial, e.g. if they receive insufficient salary compensation.⁵⁸ During this pandemic, there have been repeated reports of verbal and physical abuse aimed at persons of Asian descent.⁵⁹ Other stigmatized persons include those suffering from COVID, which is primarily associated with fear of infection. In African countries, such situations culminate to the point that they lead to denials of hospital admission.⁶⁰

Rumours, stigma, and conspiracy theories in health crisis situations are not a novelty. During the onset of the HIV epidemic, rumours that HIV did not exist (similar to those in present-day media that COVID does not exist)⁶¹ and that its treatment was harmful to humans resulted in the rejection of antiretroviral therapy in South Africa. Furthermore, their government promoted traditional medicines that encouraged vertical HIV transmission in the community and unfortunately took more than 300,000 lives.⁶²

The spread of rumours, stigma, and conspiracy theories not only affect the health of individuals, but can also have consequences at the societal level, including the healthcare system. After the lockdown, rumours that spread across several countries caused panicked purchases. This in turn led to the rise in prices and a shortage of basic goods such as protective masks, hand sanitizers, and toilet paper, which were out of reach for many. It has been described how the extreme deficiency of some of these items has contributed to the transmission of COVID-19 in hospitals and homes in several cases in some countries.⁶³

Should the media be allowed to inform about health without checks or pass on “fake news” in the domain of disease and health, or even manipulate information? Why are they doing that?

False news, misinformation, and conspiracy theories have been a known fact in human history, but in the age of social media they have become extremely important due to the exponential growth of information dissemination, and since the beginning of the COVID-19 pandemic they have

57 National Herald, “Social Stigma Forcing Corona Patients to Avoid Screening in India,” <https://www.nationalheraldindia.com/national/social-stigma-forcing-corona-patients-to-avoid-screening-in-india> (last accessed on October 27, 2020).

58 HZZO, “Obavijest osiguranicima – koronavirus (COVID-19)” [Information for healthcare users – Coronavirus (COVID-19)], <https://www.hzzo.hr/obavijest-osiguranicima-koronavirus/> (last accessed on September 15, 2020).

59 Editorial, “Stop the Coronavirus Stigma Now,” *Nature* 580 (2020), pp. 165, <https://www.nature.com/articles/d41586-020-01009-0> (last accessed on August 25, 2020).

60 Barry S. Hewlett and Richard P. Amola, “Cultural Contexts of Ebola in Northern Uganda,” *Emerging Infectious Diseases* 9 (10/2003), pp. 1242-1248.

61 Teklic.hr.svaki dan (September 5, 2020), “Anti-korona prosvjed u Zagrebu: ‘Covid je laž, nismo svi covidioti’” [Anti-corona protests in Zagreb: “COVID is a lie, not all of us are covidioti”], <https://www.teklic.hr/lifestyle/anti-korona-prosvjed-u-zagrebu-covid-je-laz-nismo-svi-covidioti/172506/> (last accessed on October 10, 2020).

62 Chris Bateman, “Paying the Price for AIDS Denialism,” *South African Medical Journal* 97 (10/2007), pp. 912-914.

63 World Health Organization, “Home Care for Patients with COVID-19 Presenting with Mild Symptoms and Management of Their Contacts,” [https://www.who.int/publications/i/item/home-care-for-patients-with-suspected-novel-coronavirus-\(ncov\)-infection-presenting-with-mild-symptoms-and-management-of-contacts](https://www.who.int/publications/i/item/home-care-for-patients-with-suspected-novel-coronavirus-(ncov)-infection-presenting-with-mild-symptoms-and-management-of-contacts) (last accessed on April 17, 2020).

skyrocketed. This situation is extremely worrying, because it undermines trust in health institutions and programmes. The pandemic has raised many questions to which the scientific community is still seeking answers. But the authorities rarely make decisions based on empirical evidence alone: the political interest is key. Governments want to point out that the situation is under control and are too quickly providing false beliefs. Consequently, disagreement between government messages and reversals in recommendations based on emerging evidence (e.g. on the use of masks and their usefulness in protecting against infection) can be misinterpreted as incompetence. Such miscommunication is further given a negative note by the mass media because they often favour fast, sensationalist reporting rather than carefully worded scientific messages with a balanced interpretation. The outcome is an erosion of public trust and a sense of helplessness, which are the perfect preconditions for spreading harmful misinformation that makes up a vicious circle.⁶⁴

There is another crucial question: “Who benefits from this information?” According to Claire Wardle, co-founder and director of *First Draft*, there are three aspects of benefit: financial gain, political gain, and experimental manipulation. An example of financial gain is companies that have direct profits from anti-vaccination campaigns. The anti-vaxxer movement has 58 million Internet followers, and the giants of social networks are deliberately keeping them as they generate cumulative revenue of one billion US dollars from advertising. Political gain from launching untruths in order to affirm or challenge a certain policy has long been a proven method. It includes control of words and their meanings, and control of people who have to use those words, especially in times of uncertainty and anxiety, and especially if such times last longer.

How can one solve/mitigate the problem?

In addition to personal, professional and moral responsibility, immediate, coordinated action by the global political, corporate, and scientific community is certainly needed to maintain the integrity and credibility of professional expertise and to restore public confidence.

An example could be the efforts of the WHO platform EPI-WIN to reduce misinformation. Its goal is to share verified information, because it is not only about informing people, but also about making sure that they are properly informed.⁶⁵

Undoubtedly, social media can and should be used to support the public healthcare response with the development of increasingly adequate tools. In addition, digital technologies can overcome the limitations of social distancing during quarantine and be a resource to support mental health and solidarity with people in isolation.

⁶⁴ The Lancet, August 2020: “The COVID-19 Infodemic,” <https://www.thelancet.com/infection> (last accessed on September 1, 2020).

⁶⁵ John Zarocostas, “How to Fight an Infodemic,” [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736-\(20\)30461-X/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736-(20)30461-X/fulltext) (last accessed on September 1, 2020).

It must not be forgotten that, at times like this, the literacy of end users is indispensable. In this case, it is especially health literacy, i.e. e-health literacy. From a public healthcare perspective, health literacy is considered a personal skill that develops over a lifetime and promotes empowerment in health-related decision-making,⁶⁶ while e-health literacy is based on the concepts of both healthcare and media literacy, and refers to an individual's ability to search, understand, and evaluate health data from electronic sources, and to make informed health decisions to address a health-related problem in daily activities.⁶⁷ In the context of COVID-19, an individual's health literacy supports his or her decisions about washing hands, maintaining physical distance, adopting protective behaviours, visiting a physician, and adhering to quarantine policies, thus contributing to a more likely successful public healthcare strategy.⁶⁸ Health literacy is even more challenging when knowledge of the topic is incomplete, changing, and context-dependent. Yet, at times like this, e-health literacy is needed around the world to resist the infodemic and to empower individuals to believe and act based on reliable information, recommendations, and advice. This includes people who apply a range of skills to understand health information and the available services even in rapidly changing situations and contexts. Reliable sources must provide accurate and timely information that is relevant to the context, easy to access, easy to understand, easy to implement, and easy to use. Providing reliable, easy-to-understand information in response to these basic, urgent inquiries is crucial.

Crises such as the current COVID-19 pandemic remind us that investing in education and health literacy throughout our lives is a global resource and an asset of any community.

Concluding remarks

The media play an important role in promoting health. But in addition to their positive effects, there are also negative ones (infodemic). In order to minimize these negative impacts, there should be mutual responsibility of experts and the media in presenting health-related topics and in disseminating useful and credible information, whereby the media literacy of the end users is indispensable.

66 Okan Orkan, "The Importance of Early Childhood in Addressing Equity and Health Literacy Development in the Life-Course," *Public Health Panorama* 5 (2019), pp. 170-176.

67 Norman D Cameron and Harvey A Skinner, "e-Health Literacy: Essential Skills for Consumer Health in a Networked World," *Journal of Medical Internet Research* 8 (2006/2), e9.

68 Tetine Sentell et al., "Interdisciplinary Perspectives on Health Literacy Research Around the World: More Important Than Ever in a Time of COVID-19," *Internet Journal of Environmental Research and Public Health* 17 (9/2020), p. 3010.

Mediji i zdravlje „Anđeo i vrag“

Sažetak

Sve medije preplavile su vijesti vezane za COVID-19 pandemiju. Kao nikada do sada javnosti su se obratili vrhunski znanstvenici. Uz pozitivne stavove javili su se i negativni. Informacije o zdravstvenim sustavima koji ne mogu dati odgovarajući odgovor, veliki broj umrlih, nepostojanje cjepiva pobudili su niz neželjenih odgovora, kao što je strah i posljedični poremećaji. Loše vijesti su se nizale. Pratile su ih teorije zavjere. Određene grupe na društvenim mrežama krenule su za pronalaženjem informacija koje žele prihvatiti istinitima.

Smiju li mediji prezentirati o zdravlju bez provjera, smiju li propustiti „lažne vijesti“ u području bolesti i zdravlja, smiju li manipulirati informacijama?

Ne bi smjeli?! No, kako bi minimalizirali negativne utjecaje, obostrana je odgovornost stručnjaka i medija u iznošenju tema vezanih uz zdravlje, praćena neizostavnom medijskom pismenosti krajnjih korisnika.

Ključne riječi: mediji, zdravlje, pandemija, infodemija, COVID-19.



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